The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

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THE OPEN COURT.

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THE OPEN COURT,

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DEFINITIONS EXPLANATORY OF THE POSITION OF "THE OPEN COURT."

THE DATA of experience are perceptions.

REALITY is the sum total of all that is.

TRUTH is the conformity of cognition to reality.

[Truth being a relation between subject and object appears to be relative in its nature. Absolute truth is a self-contradiction; it would imply cognition without a cognizing subject.

At the same time it is obvious that absolute existence (in fact everything absolute) is impossible. Reality is properly called *Wirklichkeit* in German, derived from *wirken*, to take effect. Reality is not immovable and unchangeable absoluteness, but the effectiveness of things in their relations. Reality therefore implies not only existence, but the manifestation of existence also. Existence and its manifestation are not two different things; both are one.

The idea of something absolutely Unknowable is therefore also untenable; it would imply the existence of an object whose existence is not manifested *i. e.*, existence without reality; *Sein ohne Wirklichkeit*—which is a contradiction, an impossibility.]

SCIENCE is the search for truth.

The nature of science is the economy of thought. (*Mach.*)

Economy of thought is possible through application of the laws of form to thought.

KNOWLEDGE is the possession of certain truths.

[Knowledge is, so to say, the present stock or capital with which Science works. Science cannot exist without knowledge. The object of Science is not only to increase and enlarge knowledge but also to purify the present stock of knowledge from vagueness, errors, and misconceptions.

The purpose of knowledge is that of increasing our power over nature.]

MONISM is that philosophy which recognizes the oneness of All-existence, and the Religion of Monism teaches that the individual, as a part of the whole, has to conform to the cosmical laws of the All.

RELIGION is man's aspiration to be in harmony with the All.

[Religion has been defined differently in the columns of THE OPEN COURT, but all definitions that have been presented are in strict agreement. Mr. Hegeler in No. 25, defines Religion as "man's union with the All" (taking the definition from the Lutheran Catechism "Religion ist der Buud des Menschen mit Gott durch Gott," and replacing the Word GOD by the more comprehensive word THE ALL). The editor has defined Religion as "man's consciousness of his relation to the All" (No. 24); as "Das Allgefühl im Einzelnen," the All-feeling in the individual (see foot-note page 965); as "man s conception of the world that serves him as a guiding-star through life" (page 1180).]

MORALS are man's conduct in so far as it is in unison with the All.

[The basis of morality is religion. A moral educator or preacher may justly be asked, "On what authority dost thou justify thy precepts?" And he will tell us that his authority is not personal; he speaks in the name of universal order. Accordingly his authority is that of religion. If it were not so, all his good precepts would have no foundation; they would hover in the air like beautiful dreams that have no reality.]

ETHICS is the Science of Morals; it teaches man why he must, and how he can, regulate his conduct so as to be in unison with the All.

Natural history and the history of mankind prove that here on earth a constant progress takes place developing ever higher forms of existence.

Morally good are those acts which are in harmony with the All, *i. e.*, those which enhance progress, and *morally bad* are those which are not in harmony with the All, *i. e.*, those which retard or prevent progress.

[Religion (man's aspiration to be in unison with the All) has naturally produced many superstitious notions in the world, of its origin, and of its purpose. Similarly, science (man's search for truth) has produced many errors or false notions of reality. But all the superstitions of religion do not prove that religion as such is an illusion, and all the errors of science are no evidence that science as such is a sham.

It is obvious that religion and science, as here defined, are not contradictory to, but complementary of, each other. If religion and science do not agree, it is a certain sign that our conception of either the one or the other is wrong. The history of the human mind has been one of constant conflict and reconciliation between religion and science. Their relation has repeatedly been disturbed and re-adjusted.

The unitary conception of the world affords the only basis for the union of Religion and Science, and opens a new vista of progress for both.]

RECENT CONTENTS OF "THE OPEN COURT."

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[A masterly sketch of the history of Israel's people in the epoch of national organization; marked by critical acumen and a love of truth. The author, PROF. CARL HEINRICH CORNILL, is an orthodox theologian, of Königsberg, Germany. (Nos. 90, 91, 92.)]

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THE ELECTRICAL EXPERIMENTS OF PROF. HERTZ.

[The electrical researches of Prof. Hertz, of Carlsruhe, form one of the most important contributions to modern science. They show that electricity acts in the same way and according to the same laws as light and radiant heat. (Nos. 95 and 97.)]

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PAYMENT IN PROMISES TO PAY.

BY WHEELBARROW.

It is generally conceded that a promise by one man to pay another a hundred dollars is not payment, but there are some persons who believe that "Government" has the magic power to pay ten thousand million dollars with its own promises to pay. They even expand the miracle so that a citizen debtor can pay his debts by the simple "tender" of one of those promises of "Government." Several gentlemen who believe in this impossible alchemy have criticized my doctrine of dollars, with tart sarcasm which reminds me of crab-apple vinegar. I will turn the other cheek to them by a few words in reply. I will first notice Mr. Albert of Kentucky.

Mr. Albert abandons his former position. He admits that he was wrong on his law point, and he changes his argument as to the work performed by government in balancing the value of gold and silver dollars. In his first criticism he said that the American grocer could buy as much coffee in Brazil with the silver dollars he receives in payment for it here as with gold dollars, because "he exchanges his paper or silver to the government at a nominal discount to cover the transfer, and receives gold in return." Being shown his mistake he now says that the government "does not do it directly, but indirectly, by receiving gold, silver, or paper at the same value and indiscriminately for taxes and duties." "Upon this hint I spake," said Othello, and I think that Mr. Albert spoke those words on a hint from me, but they must vexatiously entangle him because in the preceding sentences he impressed it upon me that "paper shall not be accepted in payment of duties." This, he was careful to remind me, is printed on the reverse side of the greenbacks themselves. Mr. Albert calls my arguments "nebulous." No doubt they are nebulous to him, and so I fear is every kind of knowledge, for his brain is wrapped in clouds; yet he frankly admits that he is "a well-informed man."

How queer it is for "a well-informed man" to say that "a promise to pay without any specified time for payment is of no value," and that "*nominal* value is a term unknown in political economy, for it cannot be defined." I confess, as Mr. Albert kindly says, that it is a subject of which I know little. I have had no time to study political economy, but in the few books on the "dismal science," which it has been my privilege to read, the term is often mentioned, and this must be my excuse for using it. Jevons on "Money," page 75, treats of the distinction between the *metallic* value and the *nominal* value of coins. The statutes of the United States frequently speak of the "*nominal* value" of the money we are using now. It is a pity that our statesmen should have been so ignorant as to speak of "nominal value" in the very laws of the land. Had they consulted "a well-informed man" he would have warned them that "*nominal* value is a term unknown in political economy for it cannot be defined."

A critic who makes those fundamental mistakes is not entitled to any further reply. We cease to discuss the rules of rhetoric with a man as soon as we discover that he has not yet mastered the alphabet; so the man who shows that he has not yet learned the alphabet of finance is not entitled to the tribute of argument which we extend to a capable disputant. I must decline therefore to notice the rest of Mr. Albert's errors, except incidentally in my reply to that comical person, Mr. J. Allen, of Wyoming Territory, who has danced into the controversy looking very much like little Breeches in the poem, "peeart, and chipper, and sassy."

Once upon a time a pugnacious Arkansaw traveler came suddenly upon a very exciting tournament. Goaded by a love of glory, he inquired, "Is this a free fight?" They told him it was. "Count me in," he said; and in he went. After the lapse of a minute and a half, he again remarked, "Is this a free fight?" They answered, "Yes." "Count me out," he said, and left the meeting without waiting for the benediction. Mr. J. Allen rushes with kindred bravery and want of discretion upon a like experience. He knows little enough to say that "'Wheelbarrow' entirely overlooks the real cause of the depreciation of silver dollars; it is nothing more nor less than the lack of the legal tender qualification necessary to make it a bona-fide dollar." He has not yet got far enough in his alphabet to know that silver dollars *are* a legal tender, and yet he has the nerve to criticize and explain the American financial system.

A finance critic who does not know that the silver

dollars of his own country are a legal tender could hardly be historically accurate, and he is not to be held responsible for the following mistake: "The first sixty million dollars of greenbacks issued by this government were a legal tender in the payment of all dues, and were in no sense based upon gold, and a better money was never uttered." Now, it is a curious fact that this celebrated sixty million dollars was not legal tender at all. Of course, the good or bad character of those dollars is a matter of opinion. Mr. Allen thinks "a better money was never uttered." I think worse money has been uttered, but that was very bad. Speaking of that famous sixty millions, the American Cyclopædia makes the following flattering remarks. It says, those notes "did not enter freely into circulation, and there were instances of soldiers having to submit to the loss of a discount on those received for pay of from four to twenty per cent. in the District of Columbia." "Better money was never uttered," says Mr. Allen, although, at Washington, where it was made, soldiers paid in that money for defending the Capitol itself, were cheated by it from four to twenty per cent.

Listen to this: "A nickel," says Mr. Allen, "which is neither gold nor silver, *nor redeemable in either*, will purchase just as much coffee as five cents in silver." Here, again, he reasons upside down. The nickel does that just because it *is* redeemable. On that subject I find in the Revised Statutes of the United States the few feeble remarks following, that is to say:

"The five-cent and three-cent copper nickel, and one-cent bronze coins shall be a legal tender at their *nominal* value for any amount not exceeding twenty-five cents in any one payment, and

"The Secretary of the Treasury is required to redeem in lawful money all copper, bronze, copper-nickel, and base metal coinage of the United States."

The faith of the people that they will be redeemed according to the promise of the law gives them currency, exactly as faith gives value to milk tickets. This morning I was roused from slumber before daylight by the milkman "rapping, rapping at my chamber door." I got up and let him in. He gave me a quart of milk, and I gave him a paper ticket, about the size of a silver dollar. At certain times I buy a dollar's worth of tickets, and file them away for use when wanted. These tickets are not milk, they are merely securities redeemable in milk. Although they are not "*legal tender*" I have faith in them, because the dairyman has never failed to redeem them at their *nominal* value, a pint of milk for a red ticket, and a quart for a yellow one. If he should fail in business, my milk tickets on hand would be like the paper money of a broken government—worthless. But the metal money of a country up to its full bullion value, never fails. The coins of Alexander the Great have survived a hundred nations, and are good to-day.

The promise of redemption gives the greenbacks value. This promise is not only printed on the face of them, but has been solemnly written by Congress in the law of March, 1869. It contradicts the assertion that they are dollars, and this denial has been enrolled among the judgments of the Supreme Court of the United States. That tribunal has decided that,

"The dollar note is a promise to pay a dollar, and the dollar intended is the coin dollar of the United States. These notes are obligations, they bind the national faith. They are therefore strictly securities."

On that principle greenbacks are exempt from taxation. The Supreme Court has decided that also, on the ground that they are not dollars, but merely securities of the United States, and therefore not taxable either by the nation, or by any city, or county, or State.

I feel like making an apology for degrading controversy by answering the statement of Mr. Allen that if the world were to demonetize gold, a gold dollar would be worth only five cents, and the equally wild assertion that it would be worth about fifteen cents if the United States were to demonetize gold. The American gold dollar contains 25.8 grains of gold. According to Mr. Allen the value of the metal is fifteen cents, and the United States by coining it into a dollar adds an extra value to it of eighty-five cents. Do I not owe an apology to the reader for noticing such exuberant error?

Coinage adds the merest trifle to the value of the metal coined. This is proven by the fact that gold bullion is nearly equal in value to the same quantity of gold in eagles or in sovereigns. I think the four hundred shekels of silver paid by Abraham for the field of Machpelah were not coins, for they were *weighed*, not *counted*, and yet they were "current money with the merchant." When the sons of Abraham passed under the dominion of Rome, and those shekels bore the "image and superscription" of Cæsar, their value relatively to the other silver round about them was not changed. The coining of them simply dispensed with the trouble of weighing them. The "image and superscription" merely said to the merchants, "You need not weigh this piece; Cæsar hath already weighed it, and vouches that it contains so many grains of silver." And wherever those shekels are to-day, whether in shillings or in dollars, whether bearing the image of Queen Victoria, or our own Goddess of Liberty, the "image and superscription" upon them only testify to their weight. Whatever additional value they obtain by reason of their "*legal tender*" quality, is a dishonest value, the measure of their usefulness in cheating creditors and poor men out of their wages.

There is a playful innocence in Mr. Allen's fairy-

like vows of what he would do with gold and silver had he the power. He would reverse the laws of the universe, and make water run up-hill instead of down. He would demolish what he calls the "idol" gold, and erect a paper "idol" in its place. He would make gold inferior to silver, and then "base both of them upon a paper standard, making them redeemable in United States Treasury Notes, and then demonetize both of them." Many similar miracles he would perform by the same power. All this is like the boasting of the poetical child, who delights us with airy promises of what impossible things he would do if he were King of France.

THE ELECTRICAL EXPERIMENTS OF PROF. HERTZ.

BY THOMAS J. McCORMACK.

II.

THE experiments cited in No. 95 under the title "Production of Electrical Rays," offer conclusive evidence that an electric oscillation is propagated in space as a form of wave-motion. We found that the interposition of a screen produced phenomena of reflection; nodes and loops of vibration were discovered; the reflected waves *interfered* with the forward traveling waves. But the laws of reflection may be more perfectly illustrated than by the production of phenomena of interference. It was found possible, namely, to separate the incident and the reflected wave-systems. The following was the method employed.

The two concave mirrors were so stationed with reference to each other that their openings faced in the same direction and their axes converged at a point about three metres distant. Of course no sparks were evoked in the spark-transit of the receiving mirror. Thereupon a level, vertical screen, of thin sheet-zinc, 2 m high and 2 m wide, was placed at the intersection of the axes in a position such that it stood at right angles to their median line. A brisk stream of sparks was received, which was produced by the ray reflected from the screen. When the screen was turned about its vertical axis some 15° out of its proper position to the one side or the other, the sparks vanished. Consequently, the reflection is regular and not dispersive. On moving the screen away from the mirrors, while still keeping the axes convergent upon it, the sparks slowly fell off. But even at a distance of ten metres, the sparks were still perceptible; the waves having thus had to travel a path of some twenty metres. This arrangement, Hertz remarks, might be advantageously employed in comparing the velocity of propagation in air with the less rapid velocities of propagation in other substances, as, for instance, in cables.

To obtain a reflection of the ray at an angle of incidence varying from zero, the ray was conducted through a hallway along a partition-wall through which led a folding-door. In an adjacent room into which the door opened, the receiving mirror was placed; its optical axis passing through the centre of the door and cutting the direction of the ray at right angles. The level conducting screen was then so stationed, vertically, that it formed both with the ray and the axis of the receiving mirror an angle of 45°. At once a stream of sparks was excited in the secondary conductor which even the closing of the door did not interrupt. When the reflecting screen was turned some 10° out of the proper position, the sparks disappeared. The phenomenon is therefore regular in its action and the angles of incidence and reflection equal.

By placing shadow-casting screens at the various points in the line of the path, it was shown that the ray could only travel from the source of the disturbance by way of the level mirror to the secondary conductor. In every instance here, the secondary sparks vanished; whereas the screens when placed at points in the remaining space did not intercept the ray.

REFRACTION.

When a ray of light passes obliquely from a rarer to a denser or from a denser to a rarer medium, it does not continue in the prolongation of its path, but is deflected from its course. This phenomenon is called refraction. It follows a definite law. The angle of incidence always bears a constant relation to the angle of refraction; this constant relation is known as the index of refraction.

To ascertain whether a ray of electricity in passing from the air into an insulating medium, suffered refraction, Hertz caused a large prism of mineral pitch to be constructed.* The basal surface was an equilateral triangle, the sides of which measured 1·2 m; the angle of refraction was nearly 30°; the height of the prism, with the refracting edge vertically placed, was 1·5 m. The prism was laid upon a proper foundation at a height such that the centre of its refracting edge lay at an equal altitude with the primary and secondary spark-transits. Hertz first assured himself that a refraction took place, and after having attained an idea of its magnitude, instituted the following experiments.

The emitting mirror was brought, at a distance of 2·6 m, to a position facing the first refracting surface, and so stationed that the axis of the ray lay accurately directed toward the centre of gravity of the prism and struck the refracting surface at an angle of 65° from the direction of the posterior surface. By the side of the refracting edge of the prism and by the side of the surface opposite, were placed two conducting screens

* The prism weighed about twelve cwt. Since it would not have been easily manageable as a whole, it was cast in wooden boxes into three equal parts, 0·5 m in height; the boxes were left about the prisms, their presence not affecting the action of the ray.

which cut off every other passage for the ray except that through the prism. On the side of the transmitted ray a circle of 2·5 m radius was drawn upon the floor, about the centre of gravity of the base of the prism as centre. In this circle the receiving mirror was then so moved about that its aperture was continually directed towards the centre of the circle.

When the receiving mirror was placed in the line of the prolongation of the incident ray, no sparks were received; the prism threw a total shadow in this direction. But sparks were evoked when the mirror was pushed in the direction of the posterior surface of the prism; first appearing at the point where the angular displacement from the original position, as measured in the circle, amounted to 11°. The stream of sparks increased in intensity until an angular deviation of about 22° was reached, when they again fell off. The last were obtained at a deflection of about 34°.

When the mirror was placed in the direction of the greatest effect and moved backwards from the prism on the radius of the circle, the sparks could be followed to a distance of 5–6 m. Hertz's assistant, by taking his position before or behind the prism, caused the sparks unmistakably to disappear—a proof that the effect actually passed through the prism and was not transmitted by any other path to the secondary conductor.

Again, without altering the position of the prism, the focal lines of the two mirrors were horizontally placed, and the experiments repeated in this position. No variation from the experiments described was noticed.

The refractive index corresponding to a refracting angle of 30° and a deflection of 22° near the minimum of deflection, is 1·69. The optical refractive index for pitchy substances is given at 1·5 to 1·6. The inexactness of Hertz's determination and the impurity of the stuff employed does not admit of a great importance being attached to the amount and significance of the discrepancy.

POLARIZATION.

The ether particles in a ray of light oscillate transversely to the line of propagation. Ordinarily they move in all directions about the line of propagation. But under certain circumstances all the vibrations may be reduced to one common plane. In the latter case the ray of light is said to be *plane polarized*.

The property of polarization may be acquired by reflection. When light at a certain angle of incidence falls upon a reflecting surface, all the vibrations of the rays reflected occur in a common plane. If such a polarized reflected ray fall upon a second reflecting surface, it will again suffer reflection provided the planes of reflection of the two surfaces are parallel; if they are at right angles to each other the ray will be quenched. In this instance the two surfaces, or mirrors, form a *reflecting polariscope;* the first mirror is a polarizer, polarizing the light, and the second an analyzer, determining its properties.

Now the manner in which our ray of electricity in the experiments cited, was produced, shows unquestionably that the ray is formed by transverse vibrations and that it is plane polarized, just as a ray of light is. The following experiment will convince. Let the receiving mirror be turned about the ray as axis, until its focal line, and with it the secondary conductor, comes into a horizontal position; the secondary sparks will gradually disappear and when the focal lines of the two mirrors are horizontally crossed, none are visible—even though the mirrors be brought very near each other. The two mirrors act as polarizer and analyzer of a polariscope; the ray of electricity is quenched—just as in the polariscope, when the plane of reflection of the analyzer is at right angles to the plane of reflection of the polarizer, the ray of light is quenched.

Polarization may occur by refraction. Light passing through certain substances does not follow the ordinary law of refraction. In Iceland spar an incident ray is split into two: it is said to be doubly-refracted. Doubly-refracted rays are also found to be polarized; that is, their vibrations occur in a common plane. In tourmaline, which is likewise a birefractive substance, that ray only is transmitted whose vibrations are executed *parallel to the axis* of the crystal. Consequently, if a ray of light impinge upon two superposed plates of tourmaline, the ray will pass unaffected if the axes of the two plates are parallel; so also if they are oblique to each other, for then the ray is resolved into two components, *one* of which is parallel to the axis. It will, accordingly, be seen, that if where the axes of two plates of tourmaline lie perpendicular to each other, in which case there is darkness, that light will appear if a third plate be obliquely introduced between them. For the light is twice resolved, and in each case *one* of the resolved components is parallel to the axis of the tourmaline plate. The two tourmaline plates are a simple form of the so called polariscope; the first plate is the polarizer and the second the analyzer.

To illustrate the phenomena of polarization described, Hertz constructed an octagonal wooden frame, 2 m high und 2 m wide, strung with copper wires 1 mm in thickness; the wires were parallel to each other, and each was 3 cm apart from the adjacent ones. The two mirrors were then set up with parallel focal lines, and the wire screen was so placed between the two, in a position perpendicular to the line of the ray,

that the direction of the wires cut the direction of the focal lines at right angles; in this case, the screen did not perceptibly affect the secondary sparks. But when the screen was so introduced that its wires lay parallel with the focal lines, the ray was totally intercepted. With regard to the transmitted electrical energy, therefore, the screen in this instance acts towards the ray precisely as a plate of tourmaline towards a plane polarized ray of light.

The focal line of the receiving mirror was again brought into a horizontal position, when, as before, no sparks appeared. The result was the same, when the screen was introduced, so long as the wires were either vertically or horizontally placed. But if the frame was so stationed that in the either of the two possible positions, its wires were inclined 45° to the horizontal line, the effect of introducing the screen then was the production of bright sparks in the secondary spark-transit. Plainly, the screen resolves the incident vibration into two components, and permits only that component to pass which falls at right angles to the direction of its wires. This component is inclined at an angle of 45° to the focal line of the second mirror, and, resolved a second time by the mirror, is able to act upon the secondary spark-transit. The phenomenon is throughout the same as the illumination of the dark field between polarizer and analyzer of a polariscope by an obliquely introduced plate of tourmaline.

A further distinction is to be noted here. "We are able," says Hertz, "by the means employed in the present investigation, only to detect electrical force. The electrical vibrations, when the primary oscillator is placed in a vertical position, take place unquestionably in the plane passing vertically through the ray, and are not present in the horizontal plane. From the experiments made with slowly alternating currents, on the other hand, there is no doubt that the electrical vibrations are accompanied by vibrations of magnetic force, which occur in the plane passing horizontally through the ray and do not appear in the vertical plane. The polarization of the ray, accordingly, does not consist so much in the fact that vibrations take place only in the vertical plane, as, rather, that *the vibrations in the vertical plane are electrical, and those in the horizontal plane magnetic, in character.* The simple question, in which of the two planes of a ray the vibration takes place, without stating whether the inquiry is for magnetic or electrical vibration, admits of no answer.

* * *

Returning now to the last experiment upon reflection, Hertz found it possible by the aid of the circular secondary conductor to determine, in the ray, the position of the plane of undulation. Both before and after reflection from the level screen it lay at right angles to the ray and had consequently described, in the reflection, an angle of 90°.

In the experiments upon reflection hitherto described, the focal lines of the concave mirrors stood in a vertical position, and the plane of oscillation was at right angles to the plane of incidence. In order to produce a reflection in which the oscillations would be performed *in* the plane of incidence, Hertz placed the focal lines of the concave mirrors in a horizontal position. The same phenomena as in the former position were observed and no difference even of intensity was noticed in the ray in the two instances. But, if the focal line of one of the mirrors is vertical, and that of the other horizontal, no secondary sparks whatever are seen. The conclusion was, that the inclination of the plane of oscillation to the plane of incidence was not changed by the reflection so long as the inclination is of one of the preferred values mentioned. But universally this statement does not hold good. "It is questionable," says Hertz, "whether after reflection generally the ray is still plane polarized."

A further experiment may be mentioned, with regard to reflection from electrically anisotropic surfaces. The two concave mirrors were placed as in the first described experiment on reflection; their openings faced in the same direction and their axes converged at a point three metres distant. But at the point of intersection of the axes, in this instance, was placed, as reflecting screen, the octagonal frame of parallel copper wires already mentioned. The result was that when the wires cut the direction of the vibrations at right angles, the secondary spark-transit was not illuminated, but was lit up as soon as the wires coincided with the direction of the vibrations. The analogy between the partially conducting surface and the plate of tourmaline is limited, accordingly, to the part of the ray that passes through the screen. The part that does not pass through is absorbed by the plate of tourmaline but reflected from the surface here employed. If the focal lines of the two mirrors, in the experiment last described, be crossed, it is impossible by reflection from an isotropic screen to evoke sparks in the secondary conductor. Hertz was convinced, however, that by reflection from an anisotropic wire-screen sparks could be called forth; provided the screen were so placed that the direction of the wires was inclined to the two focal lines at an angle of 45°. This phenomenon is clearly explainable from what has been said with regard to the action of a ray of light transmitted through three tourmaline plates.

* * *

"The physical formations just investigated," says Hertz, "we have introduced as rays of electrical force. We may, after what we have seen, designate them perhaps, as optical rays of very great wave-lengths. I,

at least, regard the experiments cited as in high degree calculated to remove all doubt regarding the identity of light, radiant heat, and electro-dynamic undulatory motion. I believe that scientists will now be able confidently to profit by the advantages that the acceptance of this identity ensures for the theory of optics as well as the theory of electricity."

DILETTANTEISM IN LITERATURE.

THERE are two classes of artists, *Virtuosi* and *Dilettanti*. The Virtuosi are professional artists who have studied and learned their art, and who practice it to make a living. They are, as a rule, skilled in their profession and other folks gladly pay them for the privilege of enjoying their work. Dilettanti, however, practice art not for the purpose of gaining a livelihood, but for their own amusement. That which is serious work to the former, is to the latter mere play and pastime.

Virtuosi pursue their calling (whatever it be, music, painting, or poetry) for the sake of gain, but Dilettanti from pure love of art. Virtuosi, being obliged to study and struggle in order to keep abreast with the general progress, practice their art constantly to the terror of themselves and to the enjoyment solely of others; while Dilettanti, we are told by Virtuosi, labor merely for their own amusement and eminently to the terror of others.

This, being true of art, applies with full force to literature, and we may add that the shortcomings of both classes, of the Dilettanti and the Virtuosi, are more injurious here than even in music, which is the most intrusive of the arts.

It is but fair that authors and artists should earn for their work a well deserved share in dollars and cents. But they are the prophets of humanity, they deal in the highest treasures of our race, and although, like the priests of religion, they should receive payment for their services, they should not attend to their work for the sake of money and still less should they yield to the temptation of following a vulgar taste which pays well. A manufacturer who produces, and a merchant who palms off on his ill-bred customers the patterns of their *mauvais goût* may be excusable; a poet or an artist who lowers himself in this way for the sake of gain justly deserves our contempt. He profanes the holiest ideals and instead of elevating his fellow-beings, he poisons their imagination and retards their progress.

Mercantile art and literature has lost its title to nobility; it becomes obnoxious and will easily be made serviceable to low purposes.

Such are the faults to which the work of Virtuosi, of the professional caste, is often subjected, if they become slaves of lucre, be it from poverty or from greed. In a country, however, where the moral spirit is a living presence we need not be afraid of any deterioration in art and literature since encouragement to a depraved taste would be too slight to recompense a sacrifice of the nobler aspirations of higher ideals.

The dangers that threaten art and literature from dilettanteism appear less injurious, but may become just as bad by a luxuriant growth of a semi-civilization springing from the rich soil of uncultured wealth. The Dilettante, as a rule, is a harmless person so long as he knows his imperfections. He keeps his paintings or poems in his desk, and if he is a musician, plays his piano in solitude. But let him be a man of influence, and he too easily receives the praises of his so-called friends and is thus inveigled into inflicting his crude productions upon a patient world. A country in which many Dilettanti of this kind prosper, will suffer no less from it than another country may from mercantilism. Let the general taste of a country be moral in its nature but indiscriminative, and these Dilettanti will prove to be the thorns amid which the good seed will be smothered.

The danger of dilettantism is not that of immorality but of ignorance; and ignorance, especially if it lies within our power to mend it, is also a vice; at least the consequences of both are the same. Dilettanti in literature not only fill the world with their verses, but they venture into all fields. They not only write on philosophy, on theology, on economics, on psychology, and worst of all on *belles lettres*, but they are bound to have their productions published. They have no idea that in order to write on a subject they should be familiar with the literature of their topic. They do not care for that which has been proposed by others on the subject. The less they know the more original they conceive themselves to be, originality being the chief aim to which they aspire.

For the benefit of Dilettanti in literature, it must be stated that their work will perhaps be very useful for their own education and self-training, but in so far as the world at large is considered, they will contribute little or nothing to the progress of humanity. And if indeed something good come out of this Nazareth, it will be an exception.

And why?

Ideas in philosophy, in science, and in literature cannot be created from nothing; they develop like living organisms. In order to make a new scientific discovery, one must be familiar with the existing state of scientific research. Archimedes with all his genius could not have invented the phonograph; but very likely he would if he had had all the knowledge of Mr. Edison. It is obvious, accordingly, that certain discoveries and inventions lie as it were in the atmosphere and are often made simultaneously by two dif-

ferent men who know nothing of each other's labors. Thus the differential calculus was invented by Leibnitz and by Newton; the nebular hypothesis by Kant and La Place; the idea of the common descent of all animals through evolution, by Treviranus and La Marck. It is not the man who out of his own genius, from the depths of his soul, brings forth the new ideas; it is the old ideas that enter his mind and are there transformed so as to be reproduced in a maturer and truer shape. Accordingly, if we intend to contribute to the general progress of mankind, we must first acquire the present store of knowledge. If we believe that we are such geniuses as to be able to do without it, we shall (if we have sufficient intellectual strength) at best make discoveries that have been made centuries before us. We never heard of them; how can we know that they have been refuted long ago and are now replaced by other and more advanced views?

Virtuosi have the advantage of being in possession of the acquisitions of mankind in their branch, but they often suffer from being educated in a certain school, from having imbibed all the prejudices of a one-sided partisan conception. Most Dilettanti are free from the effects of a misguided training. Therefore they are usually more open to progress, and it happens frequently that a Messiah comes from out their ranks—instead of appearing in the class of the recognized professional Virtuosi. Such was the case with Wagner who describes his life in the *Meistersinger* where Walther introduces new lays; he is rejected by the professional class of *Singers*, but the old master Hans Sachs recognizes in him the genius of a new epoch.

It need not be said that if a prophet indeed arises from the Nazareth of dilettanteism, he must first pass through the severe school of self-education in order to raise himself to the present level of his craft. Being, however, independent in his work, he preserves a freshness of mind which most of his professional coworkers lack. He is not ensnared by the time honored prejudices of the guild and not imposed upon by venerable masters, whose authority, justly deserved in other respects, gives strength to their errors. While most of the professional class are so well versed, so stable in the methods of their craft, that their brain nerves have become ossified, he remains impressive and impartial. His judgment is not pre-captured, not secretly pledged to or predisposed for the old theories, and this virginity of his mind renders him fit to create new theories and progress beyond the present state.

That which is most desirable, therefore, is neither the orthodox and fossilized wisdom of the professional Virtuoso, nor the sportive levity of the Dilettante, but a combination of the virtues of both without their offensive faults. The workers of humanity that labor in the mines of man's intellectual life, must perform their task from pure love of their work, not for mere enjoyment, but with unerring, unflinching earnestness, and zeal. P. C.

INFIDELITY.

BY DR. R. B. WESTBROOK.

[From the *Freethinkers' Magazine* for July.]

"What is infidelity, and who may with propriety "be called infidels? The words *infidel* and *fidelity* are "from the same Latin root, *fidelis*. In the former the "prefix *in* (not) is used while in the latter it is omit-"ted. The original, *fidelis*, means *faithful*, from "*fides*, faith. The word faith does not primarily and "necessarily refer to *what* one believes, but to his "*fidelity* to *whatever* he believes. The more com-"prehensive and practical meaning of the original "word relates specially and primarily to the matter of "faithfulness to a *trust* or contract, and hence, in the "language of the *law*, adultery is denominated "*in-"fidelity*," because it is a violation of the marriage con-"tract. By palpable perversion of language, and "doubtless out of deference to ecclesiastical bigotry "and arrogance, lexicographers have added to the "original and real philological meaning of the word "an arbitrary and utterly unjustifiable definition, "founded entirely upon the puritanic *usus loquendi*, "and applied it to the matter of a *creed*, what one *be-"lieves* regarding the dogma of a single *sect*, as to the "infallible inspiration of its doubtful Scriptures—"doubtful as to their origin, doubtful as to what they "really teach, and equally doubtful as to the real "character and teachings of the alleged founder of "the sect. Against this perversion I firmly protest "and refuse to be called an *infidel* until I shall have "been proved *unfaithful to a trust*. According to the "real meaning of the word, I would as soon be called "a *defaulter* as an *infidel*.

"In my judgment independent investigators and "freethinkers have not been wise in tacitly accepting "an opprobious name without an earnest denial and "an indignant retort. No class of men on earth are "more free from *infidelity* than those who are vilified "as infidels by those to whom the stigma properly "belongs. In behalf of the Rationalists and Liberals "of the world, I flatly deny that they are *infidels*, and "boldly retort by charging the rankest *infidelity* upon "the paid, professional Christian clergy, with few ex-"ceptions, in that they are *unfaithful* in the search "for truth, often suppress it when they happen to find "it, and as frequently suggest the false, and even un-"faithfully and dishonestly preach what they do know "to be false! Such men are the real infidels.

"I close with a kindly hint to some of our ration-

"alistic writers and speakers who sometimes use the "expression '*orthodox infidelity*,' or similar words. "Herein I think our 'Homers' are caught 'nodding'! "Has it come to this that there are men in our *Liberal* "ranks who are not only willing to be stigmatized as "*infidels*, that is, as *defaulters* and *unfaithful* persons, "but tacitly admit that they belong to a SECT having "a 'shibboleth' or standard of orthodoxy like other "sects? Can it be true that some *Freethinkers* cannot "tolerate *free-thinking?* Let Liberals beware lest "they fall into the secret snares of the narrow bigots "who 'profess and call themselves *orthodox* Chris- "tians'! Let Freethinkers have no tests of 'good "and regular standing' except those of moral char- "acter, manly honor, and mental freedom."

THE SITAHARANAM; OR, THE RAPE OF SITA.

AN EPISODE FROM THE GREAT SANSKRIT EPIC "RAMAYANA."

TRANSLATED INTO ENGLISH BY PROF. ALBERT H. GUNLOGSEN.

V.

Now the younger Raghuid, after thus having rudely been provoked, proceeded in the direction of Rama, leaving Sita alone in the forest.

But Ravana, perceiving how both Rama and Lakshmana had been enticed away by Maritcha, began now to consider, how his own purpose could best be attained; although the dutiful Lakshmana, reluctant and bewildered, did not venture to advance very far.

In the meanwhile he, the majestic Dasagriva,* commenced moving toward the daughter of Videha, in the disguise of a mendicant penitent. He beheld the fair girl forsaken in the wood, left there alone by the two brothers, like twilight and dark night, deprived of their sun and moon.

The foolish lord of the Rakshas, on seeing the matchless woman thus lonesome, began to think with himself, that this would be the right time for approaching her during the absence of her husband and Lakshmana; and having quickly bethought himself, Ravana suddenly stood before Sita in the disguise of a wandering Bhikshu.†

He was clad in the brown garment of his order, wearing the prescribed lock of hair on the top of his head, with an umbrella and sandals; a sack was slung across his left shoulder, and in his hands he carried three bamboo-sticks, and the earthen jar for collecting alms.

Then all trees and plants growing in the wood of Janasthana, all birds and beasts at the sight of the fiend were paralyzed with terror; the winds were hushed into calm at the swift approach of the lord of all Rakshas, bent on cruel mischief, and the river Godavari ceased to flow. And then also in the neighboring Pantchavatya-forest * all birds and deer fled off in wild terror, Ravana in the meantime having come within sight of Rama's abode. The wicked fiend, thus, in his disguise of a wandering Bhikshu approached the beautiful Sita, immersed in grief at her husband's prolonged absence. He accosted the daughter of Videha, ill-concealed under his disguise, as a well by treacherous brambles; or not unlike the slow planet Saturn, when he moves toward the chaste star Tchitra.†

Ravana stopped and fixed his glance on Sita, the spotless wife of Rama, of the beautiful teeth and lips and lovely like the full moon.

She was sitting within a bower of leaves, shedding copious tears, abandoned by Rama and Lakshmana—a prey to sorrowful thoughts. In him she beheld the dark, moon-less night, while his covetous eye, though unable to carry hence the charming body of the Videha, remained immersed, and like fascinated at the sight. The evil-minded rover of the night approached still nearer to the Lotus-eyed daughter of Videha, dressed in yellow silk;‡ and wounded by the darts of the god of love, there in the solitude he began to speak to her, counterfeiting the modest tone of a Brahman; for indeed she glowed all over her person like gold or like Sri §—highest goddess in the three worlds, without her Lotus; but now, alas, Ravana began to praise her.

"O you soft-smiling, soft-eyed fair one! You are blooming like the wood yonder before us! Your swelling bosom, in its loveliness matching the choicest pearls, is indeed charming! Who are you, like a golden statue, in your yellow, silken garments, and wearing a wreath of blue Lotus? Are you modesty, renown, the goddess Sri, beauty, the divine Lakshmi ‖ herself—which of all these are you, O you fair one —you who seem so unfettered and free? Like the pointed mountain-peaks yonder are your pretty, white teeth. Your eyebrows are well penciled, delicate, and a fit ornament to your beautiful eyes. The expression of your countenance is wonderfully enhanced by those cheeks, O you Sundari! ¶ They are glowing like beaten gold and naturally charming. Your ears are well-formed, and your delicate hands possess the soft red of a Lotus-leaf; your hair is divided by a parting-line;

* Epithet of Ravana, denoting the one of "ten necks."

† A wandering Buddhistic mendicant. This, of course, is an anachronism. There were no such in Rama's day. At a later time, however, the Brahmans in their hatred of the Buddhist fraternity identified these heterodox mendicants, both male and female, with tramps, impostors, and disreputable characters.

* The 'tapovana' of the text properly denotes a wood inhabited by anachorets.

† Tchitra, the foremost star in Virgo.

‡ Yellow was the royal color in India.

§ Sri, Ceres, goddess of plenty.

‖ Lakshmi, wife of Vishnu, and goddess of happiness, etc.

¶ Sundari, name of a goddess. All the oriental epithets bestowed by Ravana upon Sita are not suited to the taste, of Western nations, and have partly been omitted and others slightly modified.

your fingers and the palm of your hand are so delicate and divine! And your lovely well-shaped feet in their quick, alternate motion resemble the tender buds of a Lotus-flower; a pair of jet-black pupils are sparkling in your large, pure eyes, O you fair-haired one, and only one hand might easily span your elegant, lithe figure.

I never on earth beheld any goddess, Gandharvi, Kinnari, Yakshi, or any living woman like you. You surpass everything in the world, and your holy beauty will never fade. And yet, my anxiety is aroused at seeing you living in this dangerous wilderness; O may you not for your welfare's sake dwell here! This is the abode of the lawless Rakshas, while lofty palaces, pleasant suburban groves, parks, Lotus-lakes, Indra-gardens and other enchanted grounds are only worthy of being inhabited by you.

Your Lotus-wreath, your jewels, and dress being all so choice, I should think that your husband must be the same. O may you not stay here, lying on the ground, suffering and feeding on roots in the wilderness—though worthy of joy, yet debarred from all happiness! Who are you then—for unto me you seem a divinity—perhaps one of the Rudras, Maruts, or Vasunas? Unto which of these divinities belong you? Are you indeed a Gandharvi or an Apsaras?* Yet, hither never used to come Gandharvis or Apsarasas, neither demi-gods nor men. This is the abode of Rakshas only—so how came you hither? None are here but jackals, lions, tigers, elephants, bears, hyenas, and wolves; and how are you not afraid of all these? And do you not fear to live in this wood amidst gigantic, swift, and furious elephants? Say then, who and whose are you, and whence have you come; for what motive have you alone ventured to invade the dreaded abode of the Rakshas?

In such words the daughter of Janaka was addressed by the evil-minded Ravana. At first she had been startled, seized with fear and mistrust; but the disguise of the Brahman again inspired her with confidence; and Sita accordingly replied to Ravana, disguised as a Bhikshu, but afterwards discovering to her great regret, that a Raksha had entered her dwelling in a penitent's garb. At first Sita honored him with every attention due to the guest, and fetching water from the wood, offered it to him; even speaking a blessing upon the saintly impostor. Ravana, while admiring the graceful princess, bent on his service, at the same time had firmly made up his mind to carry her away by force; he now imagined that he had reached his purpose and beholding her in the solitude anxiously waiting for the return of her husband, who had gone a-hunting and for Lakshmana, alas, he felt deeply satisfied.

*Apsarasas, the heavenly dancers; all the other names are also those of demi-gods.

CORRESPONDENCE.

EXTRACTS FROM OUR CORRESPONDENCE UPON THE SINGLE-TAX QUESTION.

To the Editor of THE OPEN COURT:—

I DO not wish to champion Mr. Pentecost, or to strike Wheelbarrow over his shoulder, for Mr. P. is amply able to manage his own cause; but, in a friendly way, I wish to show "W." that it is the merest quibbling to hunt for a mare's nest in words that may in a certain sense be synonyms. When ground-rent is taken for taxes, rent and taxes become interchangeable terms. * * * The question is not whether we shall tax or confiscate, for these terms mean the same thing in this connection, but in what proportion shall we take from the individual. Shall we take in proportion to each man's industry or accumulation or in proportion to the land or natural opportunity that the individual owns. * * *

Mr. P. makes a mistake in comparing the legal status of a horse—very properly private property—with land, which cannot be made private property. What the individual requires with land is secure possession, not ownership. The horse thief would laugh at your denial of ownership while leaving the horse in his possession; it is the last thing you would think of doing, but it is the very thing proposed by Georgeites with regard to land—common ownership but private possession.

Permit me, Mr. Wheelbarrow, to remind you of the old saw: "People who live in glass houses should not throw stones." You express it as your opinion that the ownership of land constitutes the political distinction between a freeman and a serf. Such a proposition is so shallow and so transparent that the man who holds it ought never to touch Mr. P.'s glove nor that of any other man who has "seen the cat." Had you thought, beyond the end of your nose, you would have seen that in any country, or under any government, where land is bought and sold freedom becomes a thing of purchase, and not a natural right, and, as we say, "the man with longest purse knows the persimmon."

It is a proposition that no man can dispute, that if either factor of production is made a commodity, slavery is the inevitable result—chattel in the one case, industrial in the other. You can stand upon this proposition as upon a rock, and standing upon it you must accept the single tax. * * *

When I was a young man, scarcely out of the years of my boyhood, I led men to battle and to death fighting for the emancipation of the chattel slaves, and now that our heads are growing grey, I would Heaven we could fall in to emancipate the industrial slaves—our own children. WM. CAMM.

MURRAYVILLE, ILL.

To the Editor of THE OPEN COURT:—

"WHEELBARROW" still in wordy warfare makes it hard to believe that he finds any real difficulty in comprehending the George theory, or that he can imagine a proposition "to take for the use of the community the whole income arising from the use of (Tom Clark's) land," equivalent to a proposition "to take for the use of the community the whole income of his farm." There may be a mental aberration which corresponds with color blindness and renders its victims unable to distinguish differences that are easily perceived by persons with normal faculties. If "Wheelbarrow" is thus affected he deserves sympathy, but uncharitable people will dismiss his case with the remark that none are so blind as those who will not see.

The income arising from Tom Clark's land is the sum which other men would pay him for permission to work for themselves on this land stripped of buildings, fences, and other improvements, which have been placed upon it by human exertion. The amount

of this income can easily be determined by the local assessors from comparison with neighboring unimproved land of the same natural capabilities and corresponding proximity to population. Their income is rent and this only is what Mr. George proposes shall be taken for the use of the community. The income of Tom Clark's farm is quite another matter. A farm is land in cultivation. Cultivation necessitates labor, and capital increases the efficiency of labor. The crops which Clark produces are the income of his farm. But this income includes the income arising from the application of labor, and the income arising from the use of capital, in addition to the income arising from the land. Mr. George concedes Tom's absolute right to the entire income of the farm, except the rental value of the land as above mentioned. * * *

In Book VIII, Chap. II, Progress and Poverty, Mr. George in plain words proposes "making land common property by confiscating rent" and to "assert the common right to land by taking rent for public uses." For this purpose, he says, "The machinery already exists. Instead of extending it, all we have to do is to simplify and reduce it" so as "to abolish all taxation save that upon land values" and "to appropriate rent by taxation." In a late speech in Manchester, Eng., Mr. George says: * * * "Although in form we propose to substitute one tax for other taxes, yet it is merely in form. * * * In reality what we propose is to abolish all taxation, because the imposition of a tax on land-value would only be in form a tax. In its nature it is but taking for the use of the community the rent which is due to the community." There is no "melancholy deception here." It is all so simple and straightforward that "the wayfaring man though a fool need not err therein." J. K. RUDYARD.

EAST NORTHPORT, N. Y.

To the Editor of THE OPEN COURT:—

WHILE decrying Georgeism, the ultimate goal of which is the Nationalization of land by means of a single land-tax, Wheelbarrow, who boasts in THE OPEN COURT of June 13th of having demolished Mr. Pentecost by extorting from him the confession that Georgeism involves confiscation, has not a word to say about the practical confiscation of small freeholds such as Thomas Clark's under our present usurious system of taxation and sales for delinquent taxes, constantly going on now all over the United States.

All the difference there is between Wheelbarrow and Henry George and his disciples is simply this: The latter propose to do the identical thing and nothing more for the benefit of the commonwealth what Wheelbarrow and his fellow reformers have been doing all along and are doing now for the private benefit of Lord Wheelbarrow and a few other private individuals who have adopted the "mighty scarce" gold dollars as the standard measure of all values. After all there is some analogy between a slave and a farm, for the hire of the one as well as the other is a source of revenue to its owner, and the abolition of slave labor will surely be followed by the abolition of private ownership in land which is fast reducing free labor to a worse condition of servitude than negro slavery was before the war. * * *

This now irrepressible conflict between vested and national rights is constantly spreading over wider acres and Irish evictions are no longer uncommon occurrences here in free America, the public highways of which are thronged with homeless tramps God made the land for all men to dwell therein and not for but a few to speculate therein and corner it, and how long the American people will rest content to be despoiled of their inheritance by our present land system the Lord only knows. F. HESS.

GONZALO. I' the Commonwealth I would by contraries
Execute all things; * * * riches, poverty,
Bourn, bound of land, tilth, vineyard, none.
No occupation; all men idle, all.
SEBASTIAN. Yet he would be king on't.—*The Tempest.*

THE LOST MANUSCRIPT.*

BY GUSTAV FREYTAG.

CHAPTER XXXVIII. — Continued.

Raschke started up from his chair. Struvelius, whose emotion was only visible in his bristly hair, began: "We were called yesterday to the police-station. When the brother of Magister Knips fled to America, his things were taken possession of on the application of petty creditors, and as the greater portion of his effects were at his mother's house, they were taken away from there. Amongst them were utensils and portfolios which evidently did not belong to the fugitive, but to his brother; one of those portfolios contained tracings after the style of manuscripts, unfinished attempts to imitate old writings, and written parchment sheets. The officials had been surprised at these, and requested me to inspect them. It appeared upon closer observation that the Magister had long been occupied in acquiring the skill of imitating the characters of the Middle Ages. And from the fragments I have found in the portfolio, there can be no doubt that he has other forgeries in his collection, some of which answer exactly to that parchment strip."

"That is enough, Struvelius," began his wife. "Now let me speak. You may imagine, dear colleague, that Werner at once occurred to us, and that we were greatly alarmed lest the husband of our friend should get into trouble through the deceiver. I asked Struvelius to write Professor Werner, but he preferred to inform him through you. This method also appeared most satisfactory to me."

Raschke, without saying a word, took off his dressing-gown, and ran in his shirt-sleeves about the room, searching in all the corners. At last he found his hat, which he put on.

"What are you about, Raschke!" exclaimed his wife.

"Why do you ask?" he said, hastily; "there is no time for delay. I beg your pardon, Mrs. Struvelius," he said observing his sleeves, and again put on his dressing-gown, but in his excitement he still kept on his hat, and thus attired, seated himself opposite his friends. Bertha, at a sign from her mother, gently took his hat off.

"A quick decision is necessary in this case," he repeated.

"There is no reason," continued Struvelius, "for withholding the property of the Magister from his mother; but, meanwhile, they would willingly allow you an inspection of the writings."

"That I do not wish," exclaimed Raschke; "it would spoil the day for me. Your judgment, Struvelius, satisfies me."

There was some further excited interchange of views, and the visitors left. Again Raschke rushed stormily about, so that the skirts of his dressing-gown flew over the chairs.

"Dear Aurelia, do not be frightened; I have made up my mind. I shall set out to-morrow."

Mrs. Raschke clasped her hands together.

"What are you thinking of, Raschke?"

"It is necessary," he said. "I despair of shaking the firm views of Werner by letter. My duty is to try whether persuasive words and detailed representations will have greater effect. I must know in what relation my friend stands to the Magister. From certain intimations of the Doctor, I fear the worst from the activity of the forger. I have a short vacation before me, and I cannot employ it better."

"But, Raschke, you wish to travel!" asked his wife, reproachfully. "How can you engage in such an undertaking?"

"You mistake me, Aurelia; in our city I sometimes do loose my bearings, but in foreign parts I always find my way."

"Because you have never yet been alone in foreign parts," replied the prudent wife.

Raschke approached her, and raised his hand warningly.

"Aurelia, it is for our friend, and one must pay no regard to trifles."

"You will never get there," rejoined his wife, with sad foreboding.

"It is much easier to speed through half the world in a secure vessel than to go on two legs through our streets; half acquaintances are the most unreliable."

"Then the money for the journey, Raschke?" whispered Mrs. Aurelia, in a low voice, that the children might not hear.

"You have in your linen cupboard an old black savings-box," replied Raschke, slily. "Do you think I know nothing of it?"

"What I have collected in that is for a new dress-coat."

"You wish to take away from me my old one?" asked Raschke, indignantly; "it is well that I have made the discovery. I would now travel to the capital even if I had no occasion for it. Out with the box!"

Mrs. Aurelia went slowly, brought the savings-box, and with silent reproach, put it into his hands. The Professor tossed the money, together with the box, into his breeches' pocket, threw his arm round his wife, and kissed her on the forehead.

"You are my own dear wife," he exclaimed; "and now there must be no delay. Bring me Plato and Spinoza."

Plato was the silk cap, and Spinoza the thick cloak of the Professor. These treasures of the house were so called because they had been bought with the money earned by two books on those philosophers. The impression which the works had made on the learned world had been very great, but the remuneration very small. A commotion arose among the children, for in winter these beautiful articles were sometimes brought out for a Sunday walk. The little troop ran with their mother to fetch them.

"Be sure and bring them back, Raschke. I am so afraid you will lose one of them."

"As I have told you, Aurelia, in traveling you may depend upon me."

"I will write a few lines to Werner; he must take care that you keep them both. I will put the letter in your coat pocket, if you will only give it to him."

"Why not?" exclaimed Raschke, courageously.

The following morning Mrs. Aurelia accompanied her husband to the point from which the coach started and took care that he came to the right place.

"If you were only safely home again!" she said, piteously.

Raschke kissed her gallantly, and seated himself on his traveling-bag.

"The seats are remarkably high," he cried out, with his legs dangling. His traveling companions laughed, and he said, civilly, "I beg the gentlemen to excuse me."

* * *

The lamps burned, and the moon shone through the white mist on the walls of the Pavilion when the Professor returned there. No ray of light fell from the windows. The house stood gloomy and abandoned, and a blue phosphorescence seemed to glimmer above it. The door was closed; the lackey had disappeared. The Scholar pulled the bell. At last some one came down the stairs. Gabriel appeared, and gave vent to a cry of joy when he saw his master before him.

"How is my wife?" asked the Professor.

"Mrs. Werner is not at home," replied Gabriel, shyly. He beckoned his master into the room: there he gave him Ilse's letter. The Professor read the lines, and held them in his hands as if stunned. This also was a manuscript which he had found. It informed him that his wife had gone from him: every word went like a dagger to his heart. When he looked at Gabriel he perceived that he did not yet know all. The servant told him what had happened. The Scholar pushed the chair from him; his limbs trembled as in a fever.

"We will leave this house immediately," he said, faintly; "collect all the things."

Like a Romish priest who prays in secret devotion to his God, he had veiled his head from the sounds which sought to penetrate his soul from the

outward world. He had closed his ears and eyes to the figures that moved about him. Now fate had torn the veil from his head.

"Mr. Hummel would not depart before your arrival," continued Gabriel; "he is in great haste."

"I shall go to his inn; follow me," said the Professor; "but first mention at the castle that I have departed."

He turned away and left the house. As he passed by the castle, he cast a wild look on the windows of the room which the Sovereign inhabited. "He is not returned yet; patience," he murmured. He then went, as if in a state of stupor, to the inn. He ordered a room, and inquired after his landlord. Immediately afterwards Mr. Hummel entered.

"Good news," began the latter, in his softest tone; "a messenger from the Crown Inspector brings me the report that they have all made a safe journey. It must have been a matter of caution that there is no letter for you."

"It was indeed a matter of caution," repeated the Scholar, and his head sank heavily on his breast.

Mr. Hummel seated himself close to him, and whispered in his ear. At the last words the Professor sprang up in terror, and a groan sounded through the room.

"A man is not a screech owl," declared Mr. Hummel, pacifyingly; "and it would be unjust to expect of him that he should be able to distinguish in the darkness the head from the tail of a rat; but every householder knows that there are also worthless contrivances of architecture. These intimations I make to you only, to no one else. I sent my card a few days ago to your father-in-law. Little Fritz Hahn has, in your absence, become a Doctor Faustus, who will carry off my poor child under his fiend's cloak to Bielstein. May I announce your arrival there?"

"Say," replied the Scholar, gloomily, "that I will come as soon as I have settled matters here."

He held Mr. Hummel firmly by the hand, as if he did not like to part from the confidant of his wife, and led him down to the hall. New travelers had arrived there, and a little gentleman in a cloak and a beautiful silk traveling-cap, turned, without looking from under a large umbrella, to the Professor, and said:

"I should be much obliged if you would show me to a room, waiter. Am I in the right place here?"

He mentioned the name of the city; the Professor took the gentleman's traveling-bag from him, seized him by the arm without saying a word, and took him rapidly up the stairs.

"Very polite," exclaimed Raschke, "I thank you sincerely, but I am not at all tired; my only wish is to speak to Professor Werner. Can you arrange for an audience with him?"

Werner opened his room, took off his hat, and embraced him.

"My dear colleague," cried Raschke, "I am the most fortunate traveler in the world: usually a pilgrim on the highroad is contented if no misfortune happens to him, but I have met in the carriage with modest and thoughtful men. The conductor on changing carriages carried my cap after me, and some one kindly accompanied me to this house; and now when, for the first time, I stand on my own feet, I find myself in the arms of him whom I came to see. It is a pleasure to travel, colleague: at every mile-stone one observes how good and warm-hearted the people are among whom we live. We are fools that we do not deliver our lectures in carriages; the anxieties of our wives are unjustifiable; a man can manage by himself."

Thus did Raschke exult.

"Who lives in this room—I or you?"

"You may remain with me or have the adjacent room, as you please," replied Werner.

"Then with you; for I wish to be without you, my friend, as little as possible."

"You come to a man who is in need of consolation," said the Scholar. "My wife is with her father; I am alone," he added, with faltering voice.

"You look to me like a traveler who draws his cloak around him in bad weather," exclaimed Raschke; "therefore what I bring you will at any rate not disturb you in cheerful repose. My business as messenger is to lower a human soul in your eyes; that is hard for us both."

"I have to-day experienced what would shatter the foundations of the strongest structure. There can be but little that would shock me now: I am composed enough to listen."

Raschke seated himself by him and told his story. He fidgeted about on the sofa, slapped his friend on the knee, stroked his arm, and begged for composure.

Again was a veil drawn from the head of the seeker, who had believed himself to be speaking alone with his God. The Scholar was silent, and did not flinch.

"This is fearful, friend?" he said, at last.

With that he broke off, and the whole evening he did not say a word about the Magister.

The following morning the Professors sat together in Werner's room. Werner at last threw the two parchment sheets on the table.

"With these at least the Magister has had nothing to do. I myself fetched them out of the old rubbish: there lies the missal on the chest. It demands great self-control for me to look at that dearly-bought acquisition."

Raschke examined the parchment.

(To be continued.)

SELECTIONS FROM THE GERMAN.

TRANSLATED BY MARY MORGAN (GOWAN LEA).

VII.

"Dying! yet thou smilest ever;
Self-consuming—how canst sing?"

THE POET'S ANSWER.

O Love, you use me cruelly!
I sing, yet must I say
My heart is aching, sighing:
The tapers there decay,
Yet shed a light in dying.

Love-pain sought once a distant star
To dwell in some secluded spot;
It found me ere it wandered far,
And now, alas! it wanders not.
—*Goethe.*

VIII.

IN MY BARK.

Silvery clear a gleam of beauteous light
Follows on my bark in this dark hour;
Such thy influence upon the night
Of my life—a heavenly soothing power.

Every glimmer on the billows there,
Vanishes with a succeeding tide;
But thy soul on mine shines ever fair,
And thy light forever doth abide.
—*Meissner.*

IX.

REST.

Holy night! the systems of the worlds
Calmly move through the celestial sphere;
Light and peace—are they of heaven alone—
Known not unto mortal here.

Like to spectral forms that haunt and fade
Are—amid earth's turmoil and its woe—
Our most sacred and exalted moods—
Holiest sentiments we know.

Wears the gallant victor dying wreaths?
Earns he but the laurels that decay?
Leaving them at last on earth's dull shore,
Does he sink and pass away?

Give me rest! O Peace, I crave but thee;
Thine the face I seek in yonder sky;
Darkness all around me, tired, astray,—
Peace! O let the pilgrim die.
—*Tiedge.*

NOTES.

It is with deep regret that we learn of the death of an honored contributor, Mr. Xenos Clark. Mr. Clark's contributions to The Open Court began with the first number.

An esteemed contributor, whom official position has brought into contact with the manifold forms of human degradation, with Pauperism, Lunacy and Crime, writes; "In such a position a man needs a theory of the universe which affords room for hope, here as well as hereafter, to enable him to perform his daily round of duty, without such a depression of spirits as would be crushing. A religion of progress, and an ethics based upon that, gives one inspiration and strength, and makes the part that one has been chosen for, such of the kind given me to do, a source of profound gratitude. I write thus because I feel it due to you, and the promoters of your journal, to tell you how I am helped by it."

The Vermont Microscopical Association announces the offer of a prize of two hundred and fifty dollars for each discovery of a new disease germ. Microscopists, and all interested, are referred for further information to C. Smith Boynton, Secretary of the Association, Burlington Vt.

Mr. George J. Romanes, the English scientist, will contribute to The Open Court of July 11th, an article entitled "The Psychic Life of Micro-Organisms." Mr. Romanes writes in reply to the criticisms of M. Alfred Binet. In the preface to a work by the latter author, "The Psychic Life of Micro-Organisms," recently published by The Open Court Publishing Company, M. Binet took issue with Mr. Romanes as to the stage of animal development at which psychological powers first appear. The two standpoints, apparently, were radically different. M. Binet's conclusions were based upon accurate investigations into the life of microscopic organisms; he asserted that "psychological phenomena" are found in unicellular organisms, in lower-class beings, and are not superadded at higher stages in the course of zoölogical development. The studies of Mr. Romanes had led to the contrary conclusion, and, from this arose the occasion of M. Binet's critical remarks.

"Light on the Path" is the title of a little pamphlet of sixty-eight pages which the Theosophical Book Company of Boston have recently issued. It is termed a "treatise for the personal use of those who are ignorant of the Eastern wisdom and who desire to enter its influence." The title-page is stamped with an equilateral triangle. The equilateral triangle, in fact, seems to be an important factor in the initiation of neophytes into the wisdom of the East. It symbolizes the rigidity, necessity, universality, etc., of theosophical doctrines—their equality of relation. Instance the following logical specimens: rule 9) Desire only that which is within you; rule 10) Desire only that which is beyond you; rule 11) Desire only that which is unattainable. After the infliction of twenty-one canons similar to the above-quoted, the author concludes: "they are the first of the rules which are written on the walls of the Hall of Learning: Those that ask shall have. Those that desire to read shall read. Those who desire to learn shall learn [*sic*!]"; and in substantiation of this, the equilateral triangle is again mysteriously appended. We have been unable to master the occult philosopy of "Light on the Path."

The disclaimer of Dr, R. B. Westbrook, which appears in the columns of the present issue as a reprint from the July *Freethinker's* magazine, was prompted by the utterance of various liberal papers that "the President of the American Secular Union was not orthodox in his infidelity." Dr. Westbrook objects, with force and propriety, to the unwarranted intrusion upon honest and fearless men of an opprobrious epithet. But a word should be said in defence of that good and faithful servant, the lexicographer, whom Dr. Westbrook so harshly arraigns. The perversion of language which led to the present use of the word "infidel," cannot be attributed to the lexicographer. The lexicographer has not "added to the primitive and philological meaning of the word an arbitrary definition of his own; he never had that power; he records simply what the creative genius of a language gives forth. But unfortunately for many English words that creative genius was puritanical. A similar, though inverse, process is discoverable in 'miscreant.' 'Miscreant' originally denoted a wrong-believer. But rascality and unbelief became in some way identified in the Christian mind, and now the bona fide miscreant, as a supplement to his knavery, must bear the additional philological stigma of heathenish unbelief. The process, whether it has beautified or perverted a word, is a natural and constant one.